What is claimed is:

1. A broadcasting apparatus that broadcasts broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the broadcasting apparatus comprising:

scheduling means for generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

transmission means for transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein the scheduling means generates the schedule so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program.

2. The broadcasting apparatus of Claim 1,

wherein the predetermined amount of time in the schedule generated by the scheduling means is a time period necessary for transmitting the specific program at least once.

3. The broadcasting apparatus of Claim 2,

wherein the scheduling means includes generation means for generating (a) first messages which designate the receiving apparatus to store the specific program in a storing unit within the receiving apparatus and (b) a second message which designates the receiving apparatus to reproduce the specific program stored in the storing unit, and

the transmission means transmits (a) the first messages for a duration from the transmission starting time to the transmission finishing time of the specific program, and (b) the second message in the reproduction time period of the specific program.

4. The broadcasting apparatus of Claim 1,

wherein the scheduling means includes generation means for generating (a) first messages which designate the receiving apparatus to store the specific program in a storing unit within the receiving apparatus and (b) a second message which designates the receiving apparatus to reproduce the specific program stored in the storing unit, and

the transmission means transmits (a) the first messages for a duration from the transmission starting time to the transmission finishing time of the specific program, and (b)

the second message in the reproduction time period of the specific program.

5. A method for broadcasting broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the method comprising the steps of:

a scheduling step for generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step for transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program.

6. The method of Claim 5,

wherein the predetermined amount of time in the schedule generated in the scheduling step is a time period necessary for transmitting the specific program at least once.

7. The method of Claim 6,

wherein, in the scheduling step, (a) first messages which designate the receiving apparatus to store the specific program in a storing unit within the receiving apparatus and (b) a second message which designates the receiving apparatus to reproduce the specific program stored in the storing unit are generated, and

in the transmission step, (a) the first messages are transmitted for a duration from the transmission starting time to the transmission finishing time of the specific program, and (b) the second message is transmitted in the reproduction time period of the specific program.

8. The method of Claim 5,

wherein, in the scheduling step, (a) first messages which designate the receiving apparatus to store the specific program in a storing unit within the receiving apparatus and (b) a second message which designates the receiving apparatus to reproduce the specific program stored in the storing unit are generated, and

in the transmission step, (a) the first messages are

transmitted for a duration from the transmission starting time to the transmission finishing time of the specific program, and (b) the second message is transmitted in the reproduction time period of the specific program.

9. A program recording medium which is readable for a computer in a broadcasting apparatus, the broadcasting apparatus broadcasts broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, a computer program embodied on the program recording medium has the computer conduct the steps of:

a scheduling step for generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step for transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific

program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program.

10. A program that is executed by a computer in a broadcasting apparatus, the broadcasting apparatus broadcasts broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the program has the computer conduct the steps of:

a scheduling step for generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step for transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction

starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program.